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SCIENCE AND TECHNOLOGY COMMITTEE

THE ROUTES THROUGH WHICH THE SCIENCE BASE IS TRANSLATED INTO INNOVATIVE AND COMPETITIVE TECHNOLOGY

MINUTES OF EVIDENCE

Wednesday 12 May 1993

Mr R Drummond, Mr C Harrison, Dr A J Hale and Mr G Ross Russell

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WEDNESDAY 12 MAY 1993

Members present:

Sir Giles Shaw, in the Chair

Mr Spencer Batiste
Dr Jeremy Bray
Mrs Anne Campbell
Cheryl Gillan
Mr Andrew Miller
Mr William Powell
Sir Trevor Skeet
Mr Alan W Williams

Examination of witnesses

MR R DRUMMOND, Grosvenor Venture Managers Ltd, MR C HARRISON, Ernst & Young, DR A J HALE, Apax Partners & Co Ventures Ltd, and MR G ROSS RUSSELL, Chairman, Securities Institute, were examined.

Chairman

54. Gentlemen, thank you for accepting our invitation to give oral evidence to the Committee. You will be aware of the subject under inquiry. You will not be a bit surprised to know that the Committee feels that those engaged in financing innovation, technology and development should come and assist in its inquiry. Yours is the first group—I have to say that there are likely to be others—to come before the Committee in the course of its work. It has had a lot of written evidence. A lot of books and studies have been published, including the ACOST report *The Enterprise Challenge: Overcoming the Barriers to Growth in Small Firms*. There has also been a number of publications from *The Sensor* which we understand to be one of the influential magazines that services the venture capital sector. That showed that a survey conducted by the British Venture Capital Association indicated that 68.1 per cent of respondents found venture capital companies more effective and committed than the commercial banks that they used. What are the differences between venture capital companies and clearing banks in the provision of finance?

(Mr Harrison) Perhaps I may kick off by outlining the general position and then pass it over to Robert Drummond and Hamish Hale who are venture capitalists. I think the essential distinction is that a clearing bank is in the business of making loan finance which is commonly secured on the assets of a company. The only upside in making loan finance available is the interest rate to be earned on it. It may be one, two, three or four per cent above the cost of one's money. The downside risk is that you will lose all the money if the company does not succeed. That is contrasted with venture capital which is risk finance and equity finance structured in many different ways. The potential upside is that one grows one's original investment in the company which is realised on a flotation or trade sale. One may have 20 per cent of the company. On a sale the investment will be 20 per cent of whatever the value of the company is at that time.

55. Does that mean that the risk is lower?

(Mr Harrison) It means that the risk is higher because in a downside position one ranks pretty well at the end of the queue in terms of getting one's money back. In an upside position the return can be very substantial. There is a much higher risk/reward ratio.

(Dr Hale) I do not know of any clearing bank that will get into early stage high-tech investments which are extremely high risk. There is no guarantee that there will even be sales, let alone profits. What one is doing is comparing the technology with that existing in the commercial world, if it exists at all, and making an assessment of what the advantages of that technology are. There are various checks to be gone through. One goes through the advantages of a technological proposal. One is really taking the technology on trust and whatever patent protection it has. One is taking on trust the detailed analysis of what the managers of the company feel are the opportunities and what share of the market they will get, or even what market they are going to create. One has to consider what the cost of the product is, what the selling price of the product will be and do a financial analysis of the potential returns. One's return can be absolutely zero; one can lose the lot. Usually, early stage investments are equity investments, not loan investments. One is sharing the risk entirely with the management of the company. They will be putting in some of their own money; they will put in their jobs and opportunities. One shares the risk by putting in the money to create the equity in the company.

Mr Batiste

56. To what extent is the venture capital business a bi-product of the fact that clearing banks have not traditionally taken equity stakes in their customers' businesses? To what extent is that in itself a product of statutory constraints which have now passed? Do you think that we would have a more healthy and balanced financial sector if the banks were prepared to mix their financing of companies by taking equity alongside their loans?

(Mr Drummond) I believe that the attitudes of the two organisations are totally different. Banks are trained not to lose money and make sure that the small margins on which they operate are adequate to sustain their profits, whereas venture capitalists are trained to look for winners and to make investments pay very handsomely so that they can pay for the losers.

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[**Mr Batiste** *Contd*]

57. But do not continental banks mix the two successfully?

(Mr Drummond) Perhaps not in the way that one thinks in terms of putting bankers in to provide equity money to small companies in the way that venture capitalists do in the United Kingdom.

Sir Trevor Skeet

58. Surely, Germany and France, where the banking system is used to a very large extent and there are not the same resources in the venture capital market, seem to do as well as we do in this particular connection?

(Mr Drummond) I do not believe that in Germany the banks invest in early stage high-risk equity investment. They have a substantial number of equity investments who tend to be the mature large companies.

(Dr Hale) We have opened an office in Munich and have hired some young commercial entrepreneurs to work with us to look for venture capital investments in Germany. One barrier facing the venture capitalist is the attitude of banks. Banks are prepared to give very long-term loans with low interest rates and stay with customers for a very long time. The spin off from that has been that the potential company owners in Germany are not aware of alternative means of financing. If they can convince the bank that they should have a long-term loan at low interest rates that is the route they will pursue. They are very unfamiliar with venture investing as such. It is quite difficult to convince some of them that there are advantages in venture capital investment.

Mrs Campbell

59. Dr Hale said that high tech was high risk. So far we have seen quite a lot of evidence that high tech may not mean high risk. We visited companies in Cambridge where the failure rate over the past six or seven years had been as low as four per cent. I think that that is a good deal better than many businesses which are not high tech. How do you make that assessment? Do you use past data? Do you have any scientific or technical expertise yourself? Is the assessment made purely on financial grounds, or do you get inside the science of it?

(Dr Hale) I am a scientist myself. I was an academic scientist for 15 years and then in the pharmaceutical industry for 20 years before going into the venture business. I look at it from a technical as well as financial point of view. I think that what you say has to be qualified by the fact that it depends on the stage of the high-tech investment. If you are talking of companies in the Cambridge Science Park, with which I am reasonably familiar, there are comparatively few early stage companies that have succeeded.

60. I was thinking of the St John's Innovation Centre which comprises much earlier stage companies.

(Dr Hale) I am not familiar with the details of the various companies. It has to be qualified in that way. I think that high tech is high risk but there are also potentially very high returns. The combination of early stage and high tech can be the most profitable investment of the lot if you get it right but you have to accept that the risk is high.

61. How frequently do you see worthwhile proposals which you feel would be more appropriately supported by a clearing bank rather than venture capital? Is that something you can quantify? Is it your impression that such proposals will be turned down by banks before people come to you?

(Dr Hale) Speaking from my experience, it has to be recognised that a considerable proportion of the deals that come to us are referred by banks, accountants or lawyers. They are referred to us by accountants or lawyers usually because they have already enquired on behalf of their clients whether or not they can get bank financing. I do not know what the percentage is; I have a database that can tell me that if I look it up, but I imagine that a substantial proportion come to us because they have been advised by either direct or indirect enquiry that they cannot get the money from the banks.[1]

(Mr Drummond) I support that. A lot of the technology investments that come to us, especially at the early stage, cannot raise money from the banks. That is understandable. They will come to us through their intermediaries.

(Mr Ross Russell) I am not a venture capitalist in the form of my colleagues who appear before you today. St John's Innovation Centre has been mentioned. Speaking as an individual, I think they are called angels. I am a venture capitalist personally. I have invested in four or five of the start-up situations at that centre. In many cases people do not go to established venture capital companies; they go to private individuals. From personal experience, I can assure you that it is pretty high risk.

(Mr Harrison) Perhaps I may offer a perspective from someone who sees representatives of companies that are asking where they should get the money. I take the very firm view not only that banks do not lend money in early stage high-risk situations but that they should not be in that business. First, their primary objective is to safeguard the assets of their depositors. In the venture capital business they will be lending money in a situation where there is very high risk and significant potential upside reward. I do not believe that that is a business in which clearing banks should be engaged. Whilst there are situations where one would go to a bank in the first instance thinking that some measure of finance might be available and be disappointed, by and large one will know fairly clearly the appropriate approach, whether it be venture capital as opposed to bank finance. There is usually a different set of needs rather than a situation where bank finance is not available and therefore the company should approach a venture capitalist. I add

[1]See page 27.

[**Mrs Campbell** *Contd*]

that venture capital is a more expensive source of finance and therefore to the extent that bank finance is available that will be the first resort.

Mr Batiste

62. To what extent do you feel that the venture capital industry itself is being squeezed by other financial institutions in terms of funds being made available? I have the text of a speech that Mr Drummond delivered in Edinburgh in March of this year in which he said that independent venture capital firms and the funds that they raised last year had fallen by more than 18 per cent and that the biggest challenge which the sector faced was the need to keep funds flowing in. Why do you think you are experiencing that difficulty?

(Mr Drummond) It is worse than that. The 18 per cent is based on a low level in the previous year, as in earlier years. The sums were very much larger. That is particularly relevant to early stage technology investments which tend to be financed by independent venture capital firms like my own and Hamish's (Dr Hale's). We depend on raising money from independent sources, particularly pension funds and insurance companies. Why are we being squeezed? Not all of us are being squeezed. Some of the smaller ones are being squeezed. I believe the reason for that is that the experiences of investors in venture capital—using that expression in its broadest sense—have been rather poor in the past three or four years, particularly as a result of unsuccessful large buy-outs which were a major feature of our industry in the late 'eighties. That has rubbed off on the steady business of backing early stage companies in the high-technology area.

63. To what extent is that due to the fact that you are not sufficiently short term, given the nature of the investment, so that you can produce returns quickly enough for those who are providing the money?

(Mr Drummond) That is always something that concerns us greatly. I would hope that the pension funds would not think that way. They need to make returns over many years. But there is some evidence that the performance of some funds, particularly insurance company funds, is measured on a short-term basis. There is nothing longer term than investing in an early stage technology company. We usually raise our money on a 10-year cycle to invest in those technology companies. It may be difficult for the investors in our funds to report success for as much as three, four or even five years.

Mr Miller

64. I refer to the question of medium-size enterprises taking either the CBI's definition of 50 to 500 or the Government or European definition of 200 to 500. Is it true that compared with other European countries—say, Germany—there are fewer such companies in the United Kingdom? If so, has it got anything to do with the kind of financial support that is available in this country?

(Dr Hale) When you quote these numbers are you referring to capitalisation?

65. Employees.

(Dr Hale) It is extremely unlikely that we will go into any company which has over 150 employees because we will regard such a company as being in the development capital phase, not venture capital phase. I may be expressing the particular opinion of Apax. We tend to go for start-ups or early stage and intermediate stage enterprises. The company may have between 25 and 100 employees and a relatively low capitalisation, by which I mean a figure below £20 million.

66. Obviously, you look carefully at the scene around you. Is it your judgment that there are less companies of the medium-size in the United Kingdom than, say, Germany?

(Dr Hale) In talking to colleagues in our associate partnership in Paris and in Munich, whom I see regularly, and looking at their position, there are many more available in the United Kingdom than in France and Germany.

(Mr Drummond) I think one has to be careful to differentiate between early stage independent small companies and a large number of small established companies that are not necessarily in technology and may or may not be controlled by other bigger companies. I think that in the United Kingdom there are more independent small companies.

67. Can we be clear about the definition. When you refer to small companies what do you mean?

(Mr Drummond) I am talking about growing technology companies that are owned by the management and are small and independent of parent companies, whereas the statistics tend to measure all companies under a certain size. They may include established companies that are not growing, non-technology companies and subsidiaries of bigger companies.

(Dr Hale) It is only a relatively small proportion of venture capital funds in the United Kingdom that go into technology companies. If one looks at the 1992 British Venture Capital Association report, if I remember correctly I believe that of the total venture money invested in that year, 32 per cent went into consumer-type companies, 13 per cent went into the financial service sector and about 2 or 3 per cent went into biotechnology and other technology investment.

Chairman

68. Is that because such companies have not applied, or is it because they have applied and failed?

(Dr Hale) As a personal opinion, I think that many of the so-called venture funds in the United Kingdom are really development capital funds. They are looking to go into companies which are in relatively safe market sectors. You can define what the particular market sector is and what share you may get of that market. That is development capital investment, not true venture capital investment.

Mr Miller

69. How does that compare with, say, your Paris and Munich offices?

(Dr Hale) My impression is that probably the development percentage is higher in Germany and France than here.

Sir Trevor Skeet

70. In financing biotechnology start-ups Dr Hale said, in dealing with international opportunities, that the United Kingdom market was not capable of supporting such investment. Do you mean that? There are some very successful biotechnology companies in the United Kingdom.

(Dr Hale) What I meant to say was that one could not justify investing in a biotechnology company based on United Kingdom market opportunities alone. It just will not support the investment that has to go into such a company. One has to have virtually a world market, certainly a developed nation market size, to allow one to develop the revenue that justifies the investment.

71. The venture capital market in the United Kingdom is of considerable size compared with that of Germany, but it is still smaller than that of the United States. Why is so much money spent on buy-outs and buy-ins—62 per cent—and only a small amount—8 per cent—on start ups? If you want to go ahead with new ventures, surely you will go via that route and start up companies?

(Dr Hale) I think one has to return to the comment about so many of the funds being development capital funds. Buy-ins and buy-outs relate to established businesses where one is changing the management and financing. That is not to me a venture investment.

(Mr Drummond) The sums involved are very much larger.

(Dr Hale) We have a specific £200 million buy-in fund reserved for that. We will make only one investment every year or 18 months, but the investment may amount to £50 or £60 million.

72. In effect, what you are doing is investing by acquisitions?

(Dr Hale) One is looking for a bargain and changing the management and equity investment.

Chairman

73. But it is a little removed perhaps from the false impression that has been given that venture capitalists are people in search of exciting product potential.

(Mr Drummond) I very much support what Dr Hale has said. But I believe that biotechnology and software are two areas where the United Kingdom has a good record for financing early stage companies. The reason for that is that they are two high-technology products that transport very effectively across borders, particularly the United States because of the sheer size and weight of that market and the regulations involved in utilising those products in other countries. As a result, the United Kingdom is not too small a market because it can be augmented by going to the United States relatively easily. That does not apply to many electronics-type technology and other forms of manufacturing where the United Kingdom market is an island and it is very difficult to take products abroad.

Dr Bray

74. You mentioned that there had been a fall in the funds available to the venture capital market generally and in particular high-tech start-ups as a consequence of management buy-outs. Are there any figures available for the achieved rate of return on high-tech venture capital?

(Dr Hale) I do not think that there are any published figures relating to the rate of return on individual funds run by different venture capital groups. They are rather coy about publishing those figures. I guess that there is a very wide spread of rates of return, but I do not know of any published data stating what those figures are.

(Mr Drummond) There is none, although the industry association of which I am chairman is beginning to produce statistics. It may be worth noting that about four or five years ago people thought that management buy-outs were the most profitable form of investment of venture capitalists, but there is a marked change in attitude today. It is interesting to observe that although the level of investment in early stage technology is quite low it has stayed fairly steady throughout the recession and has not declined very much as an absolute amount, although it has declined as a percentage because of the large amounts of buy-outs being done in the late 'eighties.[1]

75. Is not the achieved rate of return on venture capital in the high-tech market a rather key figure? If you were able to show that there was a high risk on individual products but that overall there was a reasonable return, I would have thought that you would have a strong case to put to pension funds?

(Dr Hale) This happens internally. As venture fund managers we get our money mainly from pension funds and insurance companies. There are one or two corporate investors and occasionally private investors who provide money. They see all the details; they see the rate of return on the different funds. The convention in the industry is that you raise a new fund every three to four years. Your capability of raising a new fund with your existing investors will depend very much on what they think your first fund is doing. On a half-yearly basis they are seeing the performance of that fund, the rates of return achieved and what we think the potential rates of return are. If they are good they will come into your next fund. You tend to make the funds bigger and bigger. The first one was £10 million, then £30 million, then £75 million, then £115 million and

[1]See page 27.

[**Dr Bray** *Contd*]

then £200 million. We had a very good follow rate with our institutional investors because they were getting good rates of return on their investment.

76. We can draw conclusions from that. Obviously, that mechanism is very important. It seems that the trade association figures for the industry as a whole add weight to that point.

(Dr Hale) I think it is a reluctance to be an indicator of performance.

(Mr Ross Russell) I think it is a very interesting question. My impression is that the American venture capital companies are more ready to make public their returns. Some are very impressive indeed. I think that one can only cynically suppose that the fact we are somewhat less good at publishing returns here means that we are perhaps not so good in this country.

77. Have you any explanation as to why the venture capital market, restricting it to high-tech investments, is so much smaller in France and Germany? Is it to do with availability of funds, less liquid capital markets generally, or is it due to the demand side, that is, there is reluctance to commit venture capital?

(Dr Hale) My impression over the past few years is that in Germany it is due to the demand side. The business community in Germany is not aware of the existence and function of such funds. They are only aware of banks and what they can do with banks. That appears to be the main barrier. My German colleagues tell me that the barrier persists today. I do not think it is quite as severe as that in France. There is now an awareness of the availability of venture capital. Quite a number of deals are coming forward. My impression is that the opportunities in France are increasing in number.

(Mr Drummond) The statistics show that the French venture capital industry is growing at about the same rate as the United Kingdom market grew some years ago. It is possible that that growth is due to timing, in that the United Kingdom venture capital market grew very strongly in the early 'eighties because of legal changes, attitude changes and availability of American money. The rest of Europe stayed behind because there was not an adequate source of funds. Many of the financial environments in Europe were not suitable for many of the things that venture capitalists were doing, including lack of stock markets to float successful companies.

(Mr Ross Russell) I wonder whether it has anything to do with the tradition of investment. The continental tradition of investment is very much bond-oriented. The custom of investing in equity by pension funds is much more developed in the United Kingdom—and has been for many years—than on the continent. It has been practically unknown until quite recently for those funds to invest in equity. You would not expect the institutions on the continent to come forward in quite the same way as they do here. The tradition of Edinburgh investors building up railway investments in America and so on that has been going on for the past 100 years has for the most part not been present on the continent.

Cheryl Gillan

78. There is obviously only a limited amount of money to go round. In some cases, such as in Dr Hale's, the investor has a technology background and he can look at companies with slightly different eyes from someone whose background lies purely in the City. How fully are you able to look at the potential investment in this area? More and more small companies in the new technology start-up area turn to their lawyers and accountants as their first source of advice. You get a lot of your referred business from accountants and lawyers. I am wondering whether the accountants and lawyers are acting as a natural filter so that when you are looking at the options and the companies that you choose to support you are perhaps not seeing the full range of enterprises that are looking for support?

(Dr Hale) We recognised that two years ago and hired a young man with substantial financial experience with the sole function of getting into contact with all of the London and provincial-based lawyers, accountants and broking firms who might be seeking deals with the sole purpose of saying, "We have money. We are interested in investing. If you see something that you consider the local bank manager will not consider we will be very happy to look at it". That is producing results. We cultivate those people simply for that purpose.

(Mr Harrison) It is well recognised that venture capitalists typically get things that come through the post, like other businessmen. Generally, very many of them do not get much further than the first couple of pages and are dismissed. As to our function, if in the first instance the idea is not one which in our judgment will be attractive to a venture capitalist we will filter it out. In doing that, clearly we have regard to our own reputation. If time and time again we put forward proposals to venture capitalists that are so absurd that they will not look at them that will colour their judgment of us. Secondly, recognising that venture capitalists get many proposals, our job is to ensure that where there is one, which we believe is worthy of support the venture capitalist reads past the first page. That is partly a process of assisting the management team or entrepreneurial inventor in presenting the proposal and partly a function of, hopefully, adding to the credibility of the plan because of the firm's willingness to support it and push it through the venture capitalist's door. A venture capital fund will take more notice of an opportunity coming from a firm such as ours than it will of one that comes straight through the letterbox unsolicited.

Mrs Campbell

79. My concern is that perhaps we are missing a lot of useful opportunities presented to us by scientists. We have a reputation for producing the best ideas but are not always very good at translating them into marketable products. What concerns me about the answer to Cheryl Gillan's question is that we may be missing those opportunities because scientists are not necessarily the best people to put together business plans. If those ideas are not

[**Mrs Campbell** *Contd*]

examined by scientists at an early stage how many opportunities are we missing? Are we losing perhaps 80 per cent of our ideas?

(Mr Drummond) I think I would reverse it. It is not because scientists are not looking at scientists' business plans; it is often because the management of the technology company lacks the commercial and entrepreneurial skills that we tend to see in the United States. It is my experience that many of the very early stage technology companies are not managed by the right kind of people. I think that that comes back to education and training. Maybe the culture in this country is less entrepreneurial amongst technologists.

Cheryl Gillan

80. Mr Harrison comes from a company that looks after companies from the cradle to grave. Something that we have all asked about round this table is: Do you ever see companies that you have nurtured and acted for growing into bigger companies? Do they take off? Do you have any figures that show the success rate?

(Mr Harrison) The answer is that they do grow. I do not have any figures for the success rate. To take on a early stage company is a very difficult judgment. Many lack the skills and resources that have been referred to and the failure risk is high. There is nothing more rewarding than to begin with a start-up company and see it grow large and ultimately become a big company or to sell out, making substantial sums for the original inventors. That is something that we very much want to do. You ask whether we may be missing 80 per cent of the opportunities. When somebody comes in with a grand idea you do not always form the judgment that it is worth the risk of backing it. In a lot of cases you believe that you are right but there will always be a few in respect of which you wonder whether you have missed the most wonderful invention of all time.

Chairman

81. When you say there are no figures available is that because literally none is available or because such figures as there are are not in a form which the Committee can receive? There must be some history, even if not statistically based, of the rate of success amongst small companies.

(Mr Harrison) I am not sure of the use to which we as a firm would put such statistics, if they were collated.

82. The Committee would like to see them.

(Dr Hale) One of the problems is the time at which success is measured. Referring back to earlier comments, I can confirm that the timescale in the case of a science and technology-based company from starting the company to when you float it on the Stock Exchange or sell it varies between seven and 10 years. The venture capital industry has been in existence for only 12 years. If one looks at the number of investments, very few of them have run the full 10 years. Some have run for seven, five, three or two years. If one does not expect to realise one's investment for seven or 10 years the statistic is irrelevant.

(Mr Drummond) The other statistic you were looking for was the number that had got through the net and were financed rather than those that had succeeded at the end of the day. I can speak for only my organisation and for all the applications that come to us. The number that gets finance is quite small; it is about one in 40 or 50. I suspect that at the technology end it is slightly higher than that, ie one in 20 or 30, because we happen to have an interest in that area. If you were to ask the whole industry to produce some statistics probably all would have turned down the same investment and so you would be adding it in 50 times as a turn-down and only one would have financed it. That would not prove a lot. The fact is that in the case of any one venture capital organisation only a very small number get through the net and gain finance.

Mr Batiste

83. You have already mentioned to us in evidence that your funds come pre-eminently from pension funds. To some extent you poisoned that particular well by your emphasis on large management buy-outs which did not work during the 'eighties. Do you feel that the venture capital industry in principle is to some extent less skilful in risk assessment and more risk averse than its counterpart in the United States?

(Dr Hale) If one looks at science and technology investments and the number of companies that have been financed in the United States, the figure is about 1,600, whereas in this country the number that have been financed in this way is probably well under 100. If one looks at the reasons for that in the United States, in financing these companies there is a willingness to go into them and make investments at an early stage. It is recognised that substantial sums of money can be made. There is also a greater risk profile. They realise that substantial sums of money may be lost, which is certainly the case. If one looks at the performance of venture funds in the United States, quite a large number are what is called in the States under the water; in other words, they have produced negative returns. I do not know what the percentage is in the United Kingdom, but very few funds have folded up in that market.

84. We are more risk averse in this country?

(Dr Hale) Yes, that is certainly the case. One dramatic factor that influences the difference in practice between the United States and the United Kingdom is that in the former there is a very ready market for public flotation of companies. As long as you meet all the Stock Exchange requirements it is comparatively easy to get a company into the market to start public trading. Up until the past 18 months —which I think is an important qualification—it has been virtually impossible to take a biotechnology company out into the United Kingdom Stock

[**Mr Batiste** *Contd*]

Exchange. I am glad to say that that is now happening, and I hope that it will happen more often.

(Mr Ross Russell) It is said that it has been virtually impossible to do that in this country. What has been impossible is the market reception. The mechanism is there. If the company can meet the pretty modest Stock Exchange requirements—which are approximately the same as in the United States —it can get a listing. What I suspect my colleague means is that the depth of the recession has been such that the valuation of the company has been adversely affected.

(Dr Hale) Up until recently the Stock Exchange required one to have a trading record of at least two years that showed revenues. A very large number of biotechnology companies have no revenue in the first five years of life.

Dr Bray

85. Yet such companies are floated in the States?

(Dr Hale) Yes—where hopes and expectations are different.

(Mr Ross Russell) That can be done here. You can float here without a record but it is very rarely done. The market perception is the key factor.

Mr Batiste

86. That is another reflection of the fact that the United States is more prone to take risks than the United Kingdom. I understand that in order partly to deal with the problem of the way that small business start-ups have been squeezed in the past because of the emphasis on MBOs, which were perceived as being safer at the time, you set up a seed capital committee inside the BVCA. We understand that that has reported but we are not familiar with the conclusions.

(Mr Drummond) Perhaps I can talk about "squeezing". It is very easy to talk about percentages of money invested by venture capitalists in the United Kingdom as being very small at this end of the market. The fact is that it is still a great deal larger than it was seven or eight years ago. The sheer volume of the MBOs in the late 'eighties should not be used as a way of distorting the work going on in the areas with which we are concerned.

87. But the BVCA must have felt some concern; otherwise, it would not have set up the seed capital committee?

(Mr Drummond) The seed capital committee is one of a number of committees that is looking at various aspects of the venture capital industry. It was done presumably because it was one area that appeared to be of interest to our members. I am not suggesting that it was a defensive move, but nevertheless it was something in which people outside the industry were interested and it made sense to home in on it.

88. But the impression we have is that it was designed to look at the barriers to the funding of high-risk technology-based small companies, in particular start-ups. Can we have a copy of its conclusions?

(Mr Drummond) There is no formal report or conclusions. I can tell you that one area which concerns the association is the cost of small investments. That often includes technology, and certainly early stage companies. The cost of maintaining an investment, whether it be a £100 million buy-out or a £200,000 start-up of a high-tech company, tends to be about the same. In some cases, early stage investments require a much higher level of effort and quality of staff to manage the investment, look after it and progress it. That is one of the key problems in running a fund.

89. In relation to that question and my next one it may be more appropriate if you wrote to us to give us a considered response. I think we would be interested in having a considered evaluation from that committee on the barriers to the funding of seed capital. We would also be interested in whether you could analyse in relation to size of company the applications made to you. We would be interested to have a profile of the large, medium and small companies that made approaches to the venture capital industry for funding.

(Dr Hale) Apax recognised the seed capital problem a number of years ago. By "seed capital" one means an investment of £50,000 to £100,000 to see if a concept is realisable and whether utility can be demonstrated. We gave £½ million to Lucius Carey who managed a very interesting magazine called *Venture Capital Report*. He finances himself out of the publication of that magazine. That is sold to major investment groups. He publishes articles by inventors who have great ideas and are looking for funds. We gave him £½ million and said, "You invest it in 40, 50, 60 companies, or however many you think are worthwhile. If it goes down the drain it goes down the drain. We will not get involved in the cost of managing it. If it looks good and it needs £¼ million or £½ million come to us and we will finance it". We have done that twice. He has had £1 million from us. He is entirely free to invest it without any reference to us. That is what I call "brownfield" investment; it is a seed that is turned into a greenfield investment.

90. How many of those have come back to you for more funds?

(Dr Hale) Altogether, three or four have come back for further funding. Others are still surviving with small amounts of money; and they have also raised some other cash. I will have to check the statistics.[1]

Chairman

91. If you drop the Committee a note we will welcome it.

(Dr Hale) I will look at the statistics.

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[1]See page 28.

[**Chairman** *Contd*]

(Mr Drummond) There are a number of seedcorn investment companies in the United Kingdom, including the British Technology Group.

Sir Trevor Skeet

92. We have seen the British Technology Group on many occasions. They have a very useful patent department. Surely, will they not support a number of smaller enterprises in risk spheres in order to advance their proposals?

(Mr Drummond) The British Technology Group does not invest in companies. It used to do so; it does not now. It is concerned entirely with technology transfer, which means financing basic technology in order to bring it to the point where there are products available for exploitation. I can tell you that the British Technology Group brings a number of its ideas to the venture capital industry.

93. You said earlier that banks were looking for sound investments backed up by security. It would seem that the venture capital companies are doing precisely the same thing. Professor Mayer said: "What venture capital there is, primarily goes to relatively low technology, low risk activities, situated in the Southeast of England". Do you agree with that proposition?

(Mr Drummond) The statistics tend to look at the large amounts of money that go into low-risk areas. If you include the efforts of Morgan Grenfell Development Capital, and others who have invested £200 or £300 million each in the past couple of years in buy-outs over £50 million, yes, the statistics look distorted in that direction. But my organisation is not in the same market as those large buy-outs. The problem is that we keep comparing statistics that include very different kinds of business.

(Mr Ross Russell) We keep touching on the question of "seedcorn". Has the Committee done any work in looking at the amount of investment by private individuals? With respect to colleagues to my left and right, there is a size of investment below which those chaps are not interested. Dr Hale said that his company had given money to Lucius Carey because it is was not worth the administration costs to take it on. That is the area where the angel or private investor is quite active. I was looking at one of Lucius Carey's investments yesterday. I have invested in five or six of the St John's Innovation Centre activities. I do not know how many chaps there are like me.

Chairman

94. It appears to be important information that the Committee will want to have. Because they are individuals it is not easy to get that information.

(Mr Ross Russell) There are some accountants who are very good at passing it on to people in Cambridge whom they know are interested in this field. They get on to chaps like me and say, "Come and have a look at this".

(Mr Harrison) To expand the point about the United Kingdom market versus the United States market, my perception is that one of the key factors affecting the amount of money going into this area in the United States is that a large proportion of the money derives either directly or indirectly through consortia of wealthy private individuals with money to invest. I am not familiar with the precise details, but historically the tax breaks are more attractive in the United States and in that country there is a much greater pool of wealthy selfmade people with money to invest. In turn, that explains the stock market response in the United States. In this country there are cultural distinctions which make that pool less great. It is very difficult to get at the information. There is a lack of mechanisms to try to draw out potential investors.

Mr Powell

95. Can you assist us as to what level of involvement and rate of return you are looking to in the companies in which you invest?

(Dr Hale) The level of involvement?

96. I am referring not only to money but what you are putting in by way of ensuring that the investment is looked after?

(Dr Hale) Nearly always we will take a seat on the board. If it is a biotechnology company I will personally go on the board. If it is a computer-based company Adrian Beecroft will go on the board. If it is an investment in a chemical-based company Dr Peter Englander will go on the board. Our partnership is made up of people who have all been in some segment of business. We tend to do deals according to our business expertise. We take our expertise into the company and help guide them. We can make contacts with major clients in this country or overseas or help to negotiate matters for them. We play a very hands on role; we do not give them the money and then walk away and come back in six months' time. As to the rate of return we are looking for, anything above 35 per cent IRR is worth looking at.

Cheryl Gillan

97. I want to pursue the question of the rate of return you are looking for and the way you monitor your investment. I understand from the BVCA that 76 per cent of companies which receive backing from venture capital organisations have representatives from those companies sitting on their boards as directors. Do you routinely seek to nominate one of the directors? If so, what steps do you take to match the expertise of that director with that of the company? How do you perceive his role within the company? Of those people who sit on boards as your representatives, are any of them engineers or scientists or are they predominantly accountants?

(Dr Hale) In our partnership we have 10 partners: one accountant, one PhD in chemistry; one BSc in physics; and one MSc and BSc in material sciences, such as myself (medicine and biochemistry). The others have degrees in economics. We are a rather business/industrially oriented partnership. I speak solely for our partnership.

[Cheryl Gillan *Contd*]

98. Are you the exception?

(Mr Drummond) I think that Hamish is speaking from one extreme end of the market place. If you were to look at many of the other venture capital companies you would find that they were not dealing necessarily with technology companies or early stage companies. Whereas there are many things that we have to do in all investments that we make, in early stage technology companies there are two extra areas. First, helping the company grow from nothing is a very distinct area of activity. Often the management are inexperienced at handling all the problems that crop up in the course of business. Secondly, we help the company with its technology and, more importantly, its marketing. For all the wonderful skills we have in selecting technologies that work, typically if they do not work in the form of products that customers want all is lost. I suggest that those are two extra areas where you have to apply different skills. Therefore, in the case of early stage technology company start-ups venture capitalists have to have extra skills in that area—hence the need for industrialists as well as accountants.

99. Do you think that you would invest more in high technology companies if you had a higher profile of engineers and scientists with good business training on the staff of your company?

(Mr Drummond) I think not; it is the other way round. If we had more good opportunities to make the high-tech investments that we liked we would have the right staff to do that. In my organisation we have industrialists as well. We are near the same end as Apax, though perhaps not as far along as they are.

(Dr Hale) I think that Grosvenor, ourselves and one or two other groups are unusual in that respect. There is quite a well defined small group of venture capital investors. We all know each other. We tend to co-invest though not always. It is that small nucleus that supplies the high-technology companies.

Chairman

100. Do you think that out there there are lots of small people with good high-tech ideas looking for money but cannot find it, or do you think that on the whole the market is sufficiently large, versatile and well tuned to be able to deal with the latent demand for investment in high-tech enterprises?

(Dr Hale) I have been involved in the technical industry for a very long time. To me, one of the disappointing aspects is the relatively small number of concepts that come directly from academic groups to investment groups. If I look at various investments that we have made, two of them emerged from an academic group and went into a venture investment. The others are related mainly to people who were in industry. Being in industry, they recognised the opportunities. That opportunity might have spun out of a university but usually indirectly and through some other intermediary. I believe that they are the commonest sources of investment. Somebody in industry sees an opportunity, wants to set up his own company and finds the means to do so.

Dr Bray

101. Is there not a case for doing something like Don Braden has done in BP in relation to its venture capital interests? He keeps a close eye on science-based research in universities.

(Mr Drummond) I do not think that it has broadened very much. My disappointment is even wider than Hamish's. It is not just within universities but also from within industry. It is a great disappointment that so few people with ideas that have been created perhaps whilst working for another organisation are prepared to make the jump and back the technology that they have thought about or developed as an independent business.

(Dr Hale) The recession has been good for that purpose; it has thrown some good people out of jobs because of mergers and close-downs. Those people have had to look seriously at alternative ideas.

(Mr Drummond) It is said that unfortunate circumstances create more start ups than the right reasons that one normally thinks about.

Chairman

102. You will realise that you are now talking about the kernel of our inquiry. Why is it that the gap between the academic science base and technology appears to be so difficult to jump in the United Kingdom?

(Mr Harrison) I believe that one of the best untapped opportunities for that proposition is for the particular inventor or individual to enter into some kind of venture arrangement with a corporation in that area of the market. That is something that does not seem to have happened very much in this country, partly because the individual is frightened of the risk of the larger corporation taking over the technology or not giving it sufficient protection. In addition, I do not think that many of the large corporations are sufficiently flexible in their thinking to foster that venture arrangement.

Mr Batiste

103. First, to what extent do you find that lack of resources, be they management or financial, inhibits you from establishing links with universities which make it more likely that ideas will come to you direct? Secondly, how many ventures that you would like to fund do you turn down because you have either insufficient management or insufficient financial resources to proceed with it?

(Dr Hale) I have given up trying to create any kind of office contact with universities—whether they be university patent offices or university commercial liaison offices—to find ideas. The problem lies further back than that. As an academic for 15 years, I had absolutely no concept of what business meant and what had to be done to get something going in business. It was only when I got

[**Mr Batiste** *Contd*]

into business that I realised what it all meant. I realised the deficiency in my education. I think that the problem lies in the fundamentals of teaching undergraduates—and certainly postgraduates who are a fertile source of new ideas—and getting across to them that there are means of taking an idea and turning it into something commercial, giving them a simple education on the "do's" and "don'ts" in order to protect that idea. The greatest catastrophes have been the publication of things before they are patent protected. The area of monochromal antibodies proved to be an absolute disaster for this country. The inventors were not advised to take out a very simple patent protection on their invention before publication of their work.

Mrs Campbell

104. It has been said to us that many academics are not interested in running businesses.

(Dr Hale) They are not interested in it; and they are not trained to be businessmen. That is not what they want.

105. How can their ideas be best utilised? Do you have any part to play in that? How do companies become aware of the sort of ideas that will make them more efficient?

(Dr Hale) Somehow you have to educate these people—in whose heads these ideas are to be found —on the simple "do's" and "don'ts" and point them in the right direction so they can talk to those who can give them advice, such a BTG, St John's Innovation Centre or Isis Innovation in Oxford, which is beginning to do some very interesting things.

106. Do you feel that the onus should be on the academics or on those in industry to go into academia?

(Dr Hale) I think there is an onus on the university organisation to give these people some education and constant reminder of the need to think of ways of developing their ideas.

Dr Bray

107. The SERC arranges courses for their PhD students which are very popular. Do you take part in those?

(Dr Hale) I have not been involved in them.

(Mr Ross Russell) I think that that is a very interesting point. I do not know whether you have asked the universities the same question. I think that universities are improving. They have started to realise that they need money. Cambridge is trying to raise hundreds of millions and is suddenly becoming quite commercial in attitude. I believe that the work they have done in supporting the St John's Innovation Centre and Trinity Science Park has been enormously helpful in encouraging those with ideas. But I believe that there is also an onus on companies to start taking an interest in what is happening there; otherwise, they will not benefit from it.

Mr Powell

108. Do you share what I think is a fairly general assumption that without investment in high technology and high value added products British industry will be forced to compete with low skill, low wage competitors? How does that impact on your investment decisions?

(Dr Hale) If I understand the question correctly, to me high technology is an opportunity to grow value. Up until now we have a highly trained and educated population in this country. If you tap into their ideas and create high value products and businesses, that is the route to follow.

(Mr Drummond) I am sure that the first part of the answer to the question is yes. We need new technologies, but we need new technologies and new ideas generally. We do not want to become a low wage economy. As to whether I as a manager of funds make my decision to invest for the good of the economy, no, I do not. I make investments in the hope of making a good return for my investors. If I see an investment opportunity that may be good for the community but bad for my investors I turn it down.

109. Are you doing so? What are the trends in your investment?

(Mr Drummond) I cannot say that I think too hard about the good of the community when I make an investment. I think about whether or not it will make money.

Mr Williams

110. How important is technological innovation when you assess the likely rate of return?

(Dr Hale) When I look at a technology investment there are some very simple criteria. I want to see novelty; I want to see reduction to practice; in other words, I want to see that it works. I also want to see utility; in other words, that the fact it works has some value. There has to be some market opportunity. Either it creates a new market or it has a chance of getting a large slice of an existing one. The last criterion is that it must be international from the word "go".

111. You mentioned earlier that you wanted a high rate of return - 35 per cent?

(Dr Hale) Better than 35 per cent IRR.

112. Is that because there is a high risk?

(Dr Hale) That is what the pension funds and insurance funds who give us their money look for. They have vast funds and put a very small percentage of those into the hands of venture managers, with the clear intention that it is risk money but they are looking for a very high return. If we do not look for a very high return we do not get the money into our fund.

113. Do you generally achieve that rate of return?

(Dr Hale) Generally, we do.

Chairman

114. In that case have you given satisfaction to the insurance company?
(Dr Hale) Yes.

115. In return do they give you more funds, or do they ask for 40 per cent?
(Dr Hale) If they are satisfied they will put a tranche of money into our next fund.

116. They will not say, "Let's have 40 per cent"?
(Dr Hale) They negotiate.
(Mr Drummond) I think that Hamish is being a little bit aggressive about his rates of return. It may well be that he targets individual investments to achieve that, but if all the funds in the United Kingdom made those kinds of returns on their money we would have people coming into the industry at an enormous rate, which we do not. Therefore, I can assure the Committee that the average achieved by the industry in high technology is not 35 per cent compound; it is a good deal less.[1]
(Mr Harrison) Within a portfolio there will be some that make fabulous returns and others that make rather less.

117. Can we keep under the spotlight the question of high technology investment. Mr Drummond, you indicated that the satisfaction of your investors was your prime criterion rather than perhaps the excitement of finding something new?
(Mr Drummond) My customer is my investor.

118. In that case, do you think that you provide a fair share of the market for your customers? The high technology sector has a place in the market. It is a high-risk business but it yields a higher rate of return if you get it right. Do you always have a portfolio which will include that balance of risk?
(Mr Drummond) My organisation has a mixed portfolio with a strong essence of high technology. The average for the industry indicates that there is far less involvement in technology than my portfolio. I believe that I get a higher return from technology investments than from other sectors, but I am biased in that direction. Clearly, the whole industry does not believe that because only a very small proportion of the total money being invested goes into technology. I believe that we have an education problem. Technology not only creates good returns to investors but also creates returns for the community and, in the long run, makes greater returns to those investors who take lower risks in established business which also have to change their ways as new companies with new ideas come along. I believe that it is a self-fulfilling circle, but getting that across to investors is not easy.

Mrs Campbell

119. Obviously, what we are concerned about ultimately is government policy. I am interested to know whether there are any government polices which act as blocks or encourage the start up or continuation of high-tech companies. If so, can you identify them? Is there anything that hinders that type of company in particular as opposed to the generality of business?
(Mr Ross Russell) Surely, the one single relevant factor is interest rates. The reason why one gets these shatteringly high figures compared with what can be obtained from building society investments is that, first, one has to aim to do very well out of the ones that succeed because one will do badly on the ones that go under. All of this comes down to the level of interest rates. If you can invest at no risk in government stock at 10 per cent—because now it has come down from 15 per cent—that is one thing. If you are to take three to four times the risk on another investment you will require more than 10 per cent. It all comes down to the interest rate. What I would be interested to hear comment on is whether, now that interest rates are considerably lower than in the past, the IRR requirement is also coming down. It should come down in due course. That may not have been affected yet.
(Dr Hale) I do not think that interest rate has any impact at all. We are merely looking for a capital gain over a substantial period. The interest rate is irrelevant.
(Mr Drummond) We have to target a margin over the cost of money that offers no risk. If interest rates are at a definite rate of 15 per cent we have to make 20 or 25 per cent above that on our good investments to cover our losses. If interest rates were zero we would still have to make a 20 or 35 return to cover the failures that we would have in our business.

Chairman

120. Presumably, you share with Dr Hale the view that the capital gain is made on disposal?
(Mr Drummond) Our return is based entirely on the investment we make and the return we get at the end on sale.
(Mr Ross Russell) It comes to the same thing. You either get your money back in interest each year or by a capital gain. There is no difference.
(Mr Drummond) But if interest rates dropped 5 per cent it would mean a small percentage difference for us in terms of the level of risk that we were taking.

Mrs Campbell

121. But are there any government policies that act as blocks or as an encouragement to the start up or continuation of high-tech companies?
(Mr Drummond) I have been looking through a list of all the investments in which I have recently been involved in high-technology. I cannot think of any obvious ones, although there are a number of reasons why high-tech companies in the United Kingdom have problems, in particular the borders that exist between the United Kingdom and the rest of the world. If you can take your company to the United States market and exploit that market that is a big market. If you achieve technology lead in the

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[1]See page 27, para 8.

[**Mrs Campbell** *Contd*]

United States you have made it. If you do not go to the United States with the technology and try to exploit it here you will probably be overtaken a year later by somebody who has come up behind you in the United States. Anything that the Government can do to help United Kingdom technology companies transfer their technology to other markets should be welcomed.

(Dr Hale) There is one policy relating to genetic engineering which is absolutely vital. We are involved with genetic engineering companies, particularly one dealing with transgenics which is very successful indeed. It is growing very rapidly. There is a move in the European Patent Office not to give patent protection for transgenically-modified animals, or possibly transgenically-modified plants. You will hear the story from people involved in that work at Cambridge. I think that it is vitally important not to allow the United States to get a major advantage by having patent protection for such genetically-altered organisms. That may be another disaster for us.

Cheryl Gillan

122. I just wonder how you view the privatisation of the British Technology Group. Has it just added to the number of venture capital groups and left universities with less support for ideas and innovations?

(Mr Drummond) The BTG is not a venture group. We have invested in the British Technology Group, so we have an interest in it. It is not a venture capital company; it is a company that takes ideas and tries to develop them in the laboratory. The sums involved are quite modest. Nine out of 10 of the investments—which are really grants—are written off. Out of something like 10,000 grants, they have had substantial revenue from four and some revenue from a few hundred. It is a very different sort of business. It is a question of punting relatively small amounts of money on an idea in the hope that it can be turned into something that one day may be vitally important. That starts long before our normal stage of involvement.

123. Do you think it was a helpful government policy in that area?

(Mr Drummond) I have not seen any particular difference as a result of privatisation. I hope that it brings a degree of commercial behaviour to BTG (a) because I have an investment in it and (b) because it may mean that they will encourage the transfer of those ideas into the commercial sector so we will see more companies to back at a later stage because of that work.

(Dr Hale) I can tell you an interesting anecdote. When I left a major corporation for which I worked for some time I bought out from them a piece of technology that I had developed and they did not want. Up to that stage it had been financed partly by the company and partly by the BTG. The important point was that somebody who had been at BTG left that organisation and went to Grosvenor. He put Grosvenor capital into it, Rothschild put money in and I put my own money in. We built up the company an sold it at a substantial profit. BTG played an important role in that.

Mr Batiste

124. You have said already that one of the hallmarks of venture capital operations is that they provide a varied portfolio of money, partly through shares and partly through loans of different kinds. If you are talking of one of these companies having a 10-year life, do you use organisations like LIFFE —the Financial Futures Exchange—to offer long-term fixed rates of interest to those companies?

(Mr Drummond) The early stage technology companies rarely borrow money. Very few of the companies of this kind in which I am involved have any borrowing at all. By the way, the same applies in the United States. These companies are so high risk that any fixed interest security in those companies will be very unattractive to the investor. The sort of returns that he will want will be so high that in terms of paying interest the company will be sunk without trace. Therefore, it is essential that the security used in that context is equity-related, ie it means a high capital gain to justify the risk taken. Obviously, if one of these concerns grows into a very successful business—and we have one or two on our books that are £100 million companies—they can use the stock market and will use all the instruments available in the sophisticated markets that exist in the United Kingdom. But that is way beyond the point where they need our sort of finance.

Dr Bray

125. You mentioned that realisation gave you your return. You specifically talked about a flotation or trade sale. The requirements for a flotation are particularly demanding, whatever the details of the trading record. Trade sales can prematurely end the independence and vitality of a lively new company. Are there any other financial intermediaries or new developments in capital markets which would help you realise the value of your investments and therefore increase the rate of growth of venture capital?

(Mr Ross Russell) It is certainly open to a company which does not want to go for a listing to place part of its share capital with a number of investors. We are probably talking more about development capital and perhaps some of the Scottish investment trusts. One is going beyond the range at which most venture capital companies or private investors will operate. You do not have to get a listing.

126. Would you classify that as a trade sale?

(Mr Ross Russell) No. I would understand a trade sale to be a sale to somebody else in the business, whereas I am talking about bringing in financial investors, whether they be private individuals or people like investment companies whose business it is to invest in quoted companies but also have funds for investing in unlisted companies.

[**Dr Bray** *Contd*]

(Dr Hale) But they will eventually want to realise through a flotation anyway. They are at a mezzanine or intermediate stage.

127. Can you give us any idea of what the proportions are as far as flotations, mezzanine operations and trade sales are concerned?

(Mr Ross Russell) The mezzanine stage is very small indeed.

128. Is it growing?

(Mr Ross Russell) It always has special circumstances attaching to it. I can think of one particular private company where the family did not want the company to go public. They did not want their nephews to realise how wealthy they were. Though they could have gone public they wished to remain private. We placed their shares with a number of institutions.

129. If the big investors—the pension funds and insurance companies—are ready to invest but only to a limited extent, may they also be ready to invest in companies downstream from you? They may take those successfully launched companies and finance them through the next stage?

(Mr Drummond) I think that the problem is that investing in a private company is a difficult business. It requires a degree of involvement in the company in which typically a venture or development capital company specialises. Once the companies come to the stock market the regulations involved ensure a degree of corporate governance. It no longer requires the same degree of involvement. It is unusual for institutions not to have a venture or development capital business on the one hand and, on the other hand, make investments in private companies.

130. Is this not the key to the difference between the United Kingdom and Germany? The strength of the German economy, with its large number of medium size companies, depends very much on the informed investor and shareholder?

(Dr Hale) It depends mainly on the banks.

131. But the banks have large numbers of non-executive directors who fulfil a vital expert role on the boards of such companies.

(Mr Drummond) The German private companies are quite large. There are so few listed companies in Germany relative to the United Kingdom. Therefore, although it is true that the banks have invested in the equity of private companies those companies are ones which in the United Kingdom will be public ones and have the sort of corporate governance that we expect a medium size public company to have.

132. London boasts about its speed of development of institutions in the capital markets. Do you foresee a rapid expansion in London of companies expert at shareholding a bit further downstream than you operate but nevertheless not in a completely open stock market?

(Mr Ross Russell) I think that the reluctance would be partly from the point of view of the investment company. It would be an illiquid investment that they would be holding. The reluctance would arise also from the point of view of the companies themselves. They are not getting full value for the shares that they are selling because the shares are not liquid. If you know that you can sell 20 per cent of your equity for £100 if it has a listing but only for £60 if it is unlisted there has to be a very good reason why you do not take the £100.

133. If it can survive listing that is fine. If not or if it does not want a trade sale what happens?

(Mr Ross Russell) I am not sure why it is a question of surviving listing.

(Dr Hale) Do you mean that a company becomes listed and it fails?

134. A company that is taking on a listing, as I am sure Alan Sugar and others know, is incurring quite a change of life. There will be companies that do not want to take those risks but which want a lot more capital than they can be provided with in the venture capital market.

(Mr Ross Russell) I think that in the occasional exceptional case you can find the money.

135. But is it exceptional? In a country like Germany it is not exceptional; it is the norm.

(Mr Ross Russell) First, I suggest that the culture is different. Investors there do not invest in equities nearly as much as in the United Kingdom. The demand is not there. Secondly, we are referring to medium size companies. I was slightly confused by the earlier definition. We started off by talking of 200 to 500. Somebody asked what was meant by that. I thought that market capitalisation was being referred to, because that was what I would call a medium size company. Since it refers to personnel I cannot quickly relate it to what size we are concerned with. I suspect that if we take a capitalisation of between £50 to £500 million as our definition of a medium size company it is right to say that there are more of them in Germany, but what I am not clear about is whether that is a good or bad thing for the economy. It is easier to have takeovers here. The medium size corporate range is more liable to be picked off unless it is very sharp on its feet. We can discuss for hours whether that is a good or bad thing. I am not clear why having a large number of medium size companies is good. I think it can be argued that to be part of a large group with access to its finances is better from the point of view of development of the smaller company.

136. If you are going for organic growth rather than acquisition-based growth somebody must be growing organically. That somebody is not going to be just a small company or a big company. There has to be a substantial wadge in the middle.

(Mr Drummond) I believe that there is a serious gap in the middle at the moment, and it is because the venture capital companies cannot go on backing businesses when they get beyond a certain size

[Dr Bray *Contd*]

because of the nature of the funds they raise and the returns that their investors want. There should be some point at which that is handed over to somebody else.

137. We do not have those sorts of institutions?

(Mr Drummond) I do not think that it needs to be an institution of the kind you are considering, that is, individual investors. If they do that they have to become venture or development capitalists. I believe that there could be an active market in stocks at that level, as there is in the States through NASDAQ. Many companies have floated at much lower relative sizes than we are used to in the United Kingdom. We seem to have lost the ability to allow companies in the £10 or £15 million and £40 million range to raise money on the stock market. There is a gap, as a result of which the venture capitalists have problems. If the investment goes up to that point the venture capitalist may wish the company to sell out in a trade sale in order to get his return rather than allow it to keep its independence and raise money on the stock market. I think that we have to try to recreate the market in that area.

Chairman

138. Is that a structural fault? There is an unlisted as well as a listed market, and there are various other ways in which money can be put in. Is there a cultural gap? It may be that we do not have a sufficiently voracious appetite for taking on companies of about that size?

(Mr Drummond) The standard argument is that there are not investors who wish to invest in that range. I believe that that is a very simplistic argument. In the United States there are many sophisticated investors who invest in that size of company. Indeed, there are many United Kingdom institutions that invest in NASDAQ stocks in the United States in that area. I believe that that is to do with type of companies that we have had in that area in the past. We have had too many companies that are not growing and are relatively boring. Some of them have failed. We have not had the high-growth companies of the kind that we see in the United States. If you look at the top 400 or 500 companies in the United States today compared with 30 years ago and the top 100 companies in the United Kingdom today compared with 30 years ago you will find that the United States has undergone a tremendous change. New companies have appeared. We do not have that in the United Kingdom. I believe that we need to learn a lesson from that.

Mr Batiste

139. Basically, two contradictory points have been put to us about the way in which the stock market operates in relation to high-tech manufacturing. One group says that there is absolutely no evidence whatever that United Kingdom companies funded on the stock market are less able to invest in R&D and plant and equipment but they have to produce higher returns for their shareholders and therefore they do not retain cash in the business. They have to bring in capital from outside to finance the business, but there is no evidence that that is harmful to them. The other point of view exemplified by Herr Bruder, an economist, is that that has been the dreadful root cause of the decline of manufacturing industry in the United Kingdom and should be avoided if German industry and financial structures are not to go down the same route. He believes that the structural and cultural problem in the United Kingdom in management is that one is always looking over one's shoulder because short-term investors have short-term horizons. There is a lack of skill to assess properly what it is your company is doing if it goes into a substantial high-tech programme. Both of those are appalling generalisations because clearly we have companies in sectors like pharmaceuticals which are enormously successful. Taking that as an argument, where in the balance do you feel the pendulum should rest in trying to make judgments about the value of the stock market? This very much relates to the question posed earlier as to whether or not there is a need for some other kind of middle finance other than the stock market, if the stock market is not a successful vehicle?

(Dr Hale) Perhaps I may comment on returns and valuations. About two years ago an analysis was made by Linda Miller of Robert Stephenson, brokers in San Francisco, who was very familiar with the biotechnology scene. It may not still be true. However, that analysis covered all the publicly-quoted biotechnology companies in the United States and tried to find a correlation with valuation. The only correlation she could find was the very clear-cut one that market capitalisation was a true reflection of the cumulative R&D expenditure of the company. Its profits or revenues did not matter. The R&D expenditure was the justification for the market capitalisation; in other words, if one spent an awful lot of money on R&D it must be good for the company. There is no data in the United Kingdom that allows one to make that comparison because here there are no quoted companies of any number that allow one to make such a comparison.

140. Does that suggest that investors in the United States are a lot more analytical in their approach?

(Dr Hale) It is just that they have a lot of data because there are a lot of those companies quoted in the United States.

Chairman

141. Does that not lead to the possibility that there are particular problems in trying to bring a high-tech company to market in this country? Does the London market have sufficient understanding of the risks and rewards in high tech?

(Dr Hale) We recently had a beauty parade to which we invited eight stockbroker companies. We gave them a summary of eight of our portfolio companies and asked them to talk to us about what they thought the possibilities were of floating them.

[Chairman *Contd*]

The exercise was an extremely interesting one. It was very clear that the major brokers were not the slightest bit interested in a company that did not have a market capitalisation of somewhere around £75 million. Very interestingly, in following it up there were one or two of the smaller brokers who were very interested in companies if the minimum market capital for the flotation was £20 million. If they could justify a £25 to £30 million capital level for the company they would be very interested in taking it out into the market. That is a new response from brokers.

(Mr Ross Russell) My colleague says "new". Is it not the case that we are beginning to recover from the recession? We have been through a very bad recession and a lot of companies have gone bust. A lot of those companies have been small or one-product companies. A lot of the companies that we are talking about here are by definition one-product companies that are only just getting going. Investors are scared and have moved away. That is why there have been so few companies coming to market in the past few years. It has not been due to the Stock Exchange structure or the lack of money at the other end; it has been the economic effect on investors. That is now changing. Companies are ready to come back and investors are ready to address them. It is a great pity that the Stock Exchange, right at the bottom of the market, decided to abolish the USM. It was the classic thing not to do. They thought they were doing it because there was no longer a demand. All that happened was that we were in the depths of the recession and that had dried it up. I am delighted to say that the Stock Exchange is rethinking its policy and will no doubt bring out a new structure that is appropriate for that corner of the market.

(Dr Hale) I am very encouraged by a lot of the comments that have been made on the change in the guidelines that are put out in relation to such companies.

142. Does that suggest to you that the stock market will be a more satisfactory place in which to give support for these companies?

(Dr Hale) It already appears to be so, and I would like it to continue.

Dr Bray

143. Is £20 million low enough to interface with your venture capital activities?

(Dr Hale) If you float at £20 million you hope that the company's success will be such that the value moves up to £60 million and then you get out.

(Mr Ross Russell) One of the problems is that the exchange has become increasingly concerned with the international market. As the market has become more and more international in Europe it has taken up more and more of the Stock Exchange's concern. One of the fears was that they were taking their eye off the very necessary area of financing small companies. I hope it will not do that. As a citizen of Great Britain, my consolation at the end of the day is that the Stock Exchange does not have a monopoly. If it is not doing its job properly somebody else will, and we are very nearly at that stage.

(Mr Drummond) I agree with the last comment. We have a portfolio of 50 investments, of which nine are seeking listing at the moment in one form or another. Eight of those are technology companies. Six of them are seeking a listing in the United States. Of those six, three have merged with United States companies in the past year in order to achieve two things: first, to exploit the United States market; and, secondly, to ensure that they are of a kind that can enable them to go public in the United States. The two remaining ones are planning to float in the United Kingdom. Amazingly, one of those is an early' stage pharmaceutical company - and I will believe it when it happens. The other one is a relatively mature software company that should be able to achieve it without too much trouble. I think that that puts into perspective the fact that despite the changes in the stock market that have taken place in the past few months there is still a general feeling amongst high-tech companies that they have to go to the United States to float.

144. Are there any comparable figures for the venture capital market as a whole that can be made available?

(Mr Drummond) I am involved in a group of venture capitalists, including one of Hamish's partners, who are looking into it. We are trying to produce statistics for the Stock Exchange. A straw poll of eight funds, including 3is, was conducted. That straw poll also included two of the companies represented here. It was estimated that there were between them 200 companies that would seek listing in the United Kingdom in the next two years if the market applied the same sort of treatment that NASDAQ applied in the United States.

145. Could you send us that information?

(Mr Drummond) It was a straw poll conducted by eight people round a table.

(Mr Harrison) We certainly have a number of clients who have been looking at listing in the United States. I think the first reason is that they believe that they will achieve a higher value in the United States. Secondly, there is much greater liquidity in that market. There are statistics from NASDAQ that suggest that the total volume of transactions done in that market relating to small companies exceeds the volume of the big company transactions. That is a tremendously buoyant market. I am not sure of the extent to which the Stock Exchange's change of heart about the abolition of the USM is partly a fear that if it does not do something in this area NASDAQ will seek to have a far stronger European presence.

(Mr Ross Russell) The United States has a much more liquid market in high-tech companies. As a generality, their analysts are probably better informed about such companies. Please do not run away with the idea that therefore it is better for companies to go to the United States market. A lot of it is to do with the state of the market at the time.

[**Dr Bray** *Contd*]

The Americans are ahead of us in their recovery. They have already had a recovery and carried out a valuation of high-tech stocks. That is perhaps only just starting here. If one goes back a few years, small American companies came over here to list because they could get a better value than in the United States. In an international market, particularly in high tech, companies may well decide to list first in the market which happens to be most advanced. One will find that in due course they will list in both markets.

Mr Batiste

146. Bearing in mind that we have an international market, to what extent do you consider that current proposals relating to insider trading, constraints on takeovers and dual classes of shares in the existing stock market, which one supposes are designed for the laudable purpose of protecting minority shareholders, make it very difficult to establish long-term stable relationships with major shareholders or cross-shareholdings between companies of the kind that exist in France and Italy to a considerable extent and seem to work as an effective model in other countries?

(Mr Ross Russell) I was shown an article that suggested that insider or internal control was in some way better than shareholder control, that is, that the French system of cross-shareholdings and the German system of control by banks got better results than the United Kingdom system. I am not convinced that the dangers which can arise from feather-bedded management—in the sense of being able to get away with excesses—can be avoided more easily by the internal control systems or the market systems. For example, one only has to look at the financial excesses of what some American company management pay themselves. I am not convinced that at the end of the day the result for society and the company are better under the internal system of the French and Germans than in our shareholder-controlled system.

Chairman: Gentlemen, thank you very much indeed.

Letter to the Clerk of the Committee from
Mr Robert Drummond of Grosvenor Venture Managers Limited (24 May 1993)

Thank you for your letter of 21 May. I have the following comments:

QUESTION 65

Dr Hale mentioned the number 150 employees when he was talking about investing in high risk/early stage technology companies.

The venture capital industry invests in a wide range of private companies including many quite substantial ones with many thousands of employees.

There is no clear distinction between venture capital and development capital since it is simply a matter of risk and reward.

For some companies 25 employees would signify maturity, for others the number may be 150 or even 2,000. For a high technology manufacturing company the figure of 150 may be appropriate. The distinction between venture and development capital is one that has caused a great deal of difficulty over the years.

QUESTION 89

The Seed Capital Committee of the BVCA was a temporary committee set up a few years ago to promote a number of providers of seed capital. It did no research on the barriers to funding of seed capital which tends to be an activity carried out by only the smallest members of the BVCA. It is extremely difficult to provide information about the size of companies financed by venture capital. Nobody has come up with a definitive measure of size, since level of turnover, number of employees or size of balance sheet all produce different results. I regret that I cannot therefore give you worthwhile figures unless you look at the amount invested as a guide to the size of the companies involved.

I understand that you have already seen a copy of the draft BVCA Report on Investment Activity in the UK, but I have asked them to send you the final version when it is available within the next week or two.

QUESTION 74

No-one has produced any overall figures for Rates of Return on venture capital activity. The BVCA has started an investment performance analysis which will produce figures sometime in 1994 for internal discussion. Individual members of the BVCA publish their own figures when raising funds.

Dr Hale mentioned a figure of 35 per cent compound annual return. This is a figure often quoted as a target for high risk investment, however I can tell you that the industry has not achieved returns of anything like this figure overall, despite one or two of the more successful funds reaching these levels. Clearly for a fund to achieve these returns on a spread of investments over a longer period of time would be a tremendous result and would attract a good following from the investor community. It is generally believed that in the last three years the industry has achieved returns at a very low level and perhaps even negative overall, but it is too early to talk about returns made in such a short period, since venture capital realises its bad investments before its good.

Letter to the Clerk of the Committee from
Dr Hamish Hale, of Apax Partners and Co Ventures Limited (1 June 1993)

In reply to the questions posed in your letter of 21 May here are the answers as far as they can be defined from our database.

Question: What proportion of those companies approaching Apax have first approached banks?

Answer: We do not know, as they do not tell us if they have asked a bank for money before coming to us. Of those who have submitted plans to us they were referred to us either directly or through an intermediary (i.e., accountant, lawyer or banker), from a personal contact of one of our members of staff, or from another venture capital firm. The relevant percentages for these sources of referral are:

803 deals received in 1992.
3.4 per cent from Solicitors.
11.0 per cent from Accountants.
3.4 per cent from Banks and Stockbrokers.
82.2 per cent Direct (unsolicited or from other venture capital groups).

Question: What percentage of seed investments made through Lucius Cary have gone on to further investment?

Answer:

Age of Fund (yrs)	Fund	Investments	Failed	Received follow-on from Apax	Sold	In Apax current portfolio
8	SIL I	8	5	0	1	2
5	SIL II	13	8	1	1	4
2	SIL III	9	0	1	0	9
	Total	30	13	2	2	15

Obviously the older (8 year) fund gives a clearer indication of those which have survived, i.e., either received a follow-on investment from Apax, were sold or are still in the seed investment portfolio. Thus the survival rate in the 8 year fund is 37.5 per cent and 38.5 per cent in the 5 year fund, whereas in the 2 year fund 100 per cent are still alive. However, none of these have materialised into major financial successes.

I hope that this information is of some value to the Committee.

I enjoyed the discussion. It was much more lively than I expected it to be.

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